application program, and wherein said controller means is receptive to area registration information from said application program.

18. A computer implemented method for recognizing strokes generated by a stylus on a tablet in a computer system having a processor that runs an application program, the method comprising the steps of:

creating a stroke object from a stroke generated by a stylus on a tablet;

attempting to group said stroke object with at least one other stroke object, where in the step of attempting to group said stroke object is accomplished by passing said stroke object to through a plurality of independent recognition domains, and each independent recognition domain having a data portion and a procedures portion;

recognizing said stroke object by passing said stroke object to said plurality of independent recognition domains, wherein said independent recognition domains each return an associated recognition result;

arbitrating between conflicting recognition results generated by said independent recognition domains to select a particular one of the recognition results as a preferred recognition result; and

passing the preferred recognition result to the application program for use by the application program in directing an output to a display.

19. A method as recited in claim **18** wherein said step of attempting to group said stroke object is accomplished by passing said stroke object to said plurality of independent recognition domains in order to recognize said stroke object comprising a plurality of alphanumeric characters made with said stylus on said display means.

20. A method as recited in claim **19** wherein said step of arbitrating is accomplished using a decision theory analysis.

21. A method as recited in claim **20** wherein said decision theory analysis is an expert system analysis.

22. A computer system comprising:

a processor capable of running an application program;

a display for displaying symbols generated by the application program;

a stylus for inputting handwritten strokes on the display means;

a stroke object generator for digitizing strokes input by the stylus onto the display;

low level recognizer means responsive to said stroke objects and operative to perform low level recognition on said stroke objects wherein said low level recognizer means recognizes a plurality of gestures made with said stylus on the display means, the low level recognizer means being arranged to run on said processing means;

high level recognizer means independent of the low level recognizer means and responsive to stroke objects that are not recognized by said low level recognizer and operative to perform high level recognition on strokes that are not recognized by said low level recognizer, wherein the high level recognizer means recognizes a plurality of alphanumeric characters made with said stylus on said display means, the high level recognizer means being arranged to run on said processing means and including,

controller means capable of receiving units to be recognized, the units for recognition being based at least in part on the stroke objects,

a plurality of recognition domain means coupled to said controller means, each of the recognition domain means being arranged to receive one or more units from said controller means and being capable of providing an interpretation of said one or more units to said controller means, and

arbitration means coupled to said controller means for resolving conflicts between multiple interpretations developed by distinct ones of said recognition domain means and selecting a preferred interpretation;

a recognition interface that facilitates independent communication between the low level recognizer means and the application program, and facilitates independent communication between the high level recognizer and the application program to permit the application program to utilize recognized information to direct an output to said display; and

whereby processing efficiency is increased by permitting the low level recognizer to recognize certain stroke objects and not requiring stroke objects recognized by the low level recognizer to be handled by the high level recognizer and thereby avoiding at least some preprocessing that is required by the high level recognizer.

23. A computer implemented method for recognizing strokes in a pen based computer system that are generated by a stylus on a display in the computer system, the computer system further having a processor that runs an application program, the method comprising the steps of:

creating a stroke object from a stroke generated by the stylus on the display;

determining whether the stroke object represents a gesture input by the stylus and passing an indication of the determined gesture input to the application program when a gesture is determined;

passing a stroke unit that is based at least in part on the stroke object to a plurality of distinct recognition domains when the stroke object is not determined to be a gesture, wherein said distinct recognition domains each return an associated recognition result when passed a stroke unit for recognition;

arbitrating between conflicting recognition results generated by said recognition domains when a conflict occurs therebetween to select a particular one of the recognition results as a preferred recognition result;

passing the preferred recognition result to the application program; and

utilizing the application program to direct an output to the display based at least in part on the identified gesture when the stroke object is determined to be a gesture, and based at least in part on the preferred recognition result when a preferred recognition result is passed to the application program.

24. A computer implemented method as recited in claim **18**, wherein said method further includes the step of defining a plurality of recognition areas being coupled to said processor, and said plurality of recognition areas representing physical areas on the tablet adapted to receive stroke objects, and wherein overlapped recognition areas define merged recognition areas capable of recognizing stroke objects in each of the overlapped recognition areas.

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